

Rejections Under 35 U.S.C. §103

Claims 1-2, 4-6, 10-12, 14-16, 18-19, and 27-31 were rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,412,042 to Paterson, et al., (hereinafter, "Paterson") in view of U.S. Patent No. 5 5,787,242 to DeKoning (hereinafter, "DeKoning"). Applicant respectfully traverses these rejections.

Claim 1 specifically recites that a controller in communication with the drive mechanism maintains data coherency and keeps track of deferred writes to the at least two data storage areas of the disk. The Action 10 concedes that Paterson fails to disclose or suggest a controller in communication with the drive mechanism for keeping track of deferred writes to the at least two data storage areas. However, the Action asserts that DeKoning teaches a controller that maintains data coherency and keeps track of deferred writes to data storage areas of the disk. Applicant 15 disagrees.

The Action cites column 5, lines 1-56 of DeKoning to support the rejection. In brief, this text describes writing data that is "pinned" in the RAID cache (e.g., due to a dead RAID device) to a log file that resides on another disk drive in the RAID device to clear the RAID cache for use by the 20 remaining RAID drives. (See, Fig. 2). This text further describes writing the data back from the log file to the RAID cache when the dead RAID device has been repaired or replaced. (See, Fig. 3).

DeKoning neither discloses nor suggests a controller that maintains data coherency, as recited in claim 1. DeKoning merely writes pinned data 25 from a cache to a log file, and writes the data back to the cache at a later

point in time. Contrary to the assertion in the Action, DeKoning neither discloses nor suggests any operations that attempt to enforce data coherency or ensure data accuracy.

Claim 1 has been amended herein to clarify that the controller in
5 communication with the drive mechanism maintains data coherency between
the at least two data storage areas on the disk drive. DeKoning neither
discloses nor suggests a controller that maintains data coherency between
the at least two data storage areas on the disk drive, as recited in claim 1.
Accordingly, Applicants submit that the rejection of claim 1 is improper and
10 should be withdrawn.

Claims 2, 4-7, and 10 depend from claim 1 and are allowable at least by virtue of this dependence.

New claims 32-39 specify additional structural and operational features of the system of claim 1. Claims 32-39 are fully supported by the
15 specification, e.g., at pages 12-16 and the accompanying figures. Claims 32-39 add no new matter to the application.

Independent claim 11 recites the limitation of a controller for maintaining data coherency between the at least two data storage areas and keeping track of deferred writes to the data storage areas. Independent
20 claim 11 is allowable for at least the same reasons applied to independent claim 1.

Claims 12, 14-16, and 18-19 depend from claim 11 and are allowable at least by virtue of this dependence.

New claims 40-47 specify additional structural and operational
25 features of the system of claim 11. Claims 40-47 are fully supported by the
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specification, e.g., at pages 12-16 and the accompanying figures. Claims 40-47 add no new matter to the application.

Independent claim 27 recites the limitation of means for maintaining data coherency between a first data storage area affected by a received 5 write request and a second data storage area affected by a replicated write request. Independent claim 27 is allowable for at least the same reasons applied to independent claim 1.

Claims 28-31 depend from claim 27 and are allowable at least by virtue of this dependence.

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CONCLUSION

All pending claims are believed to be in condition for allowance.

Applicant respectfully requests reconsideration and prompt issuance of the present application. Should any issue remain that prevents immediate 5 issuance of the application, the Examiner is encouraged to contact the undersigned attorney to discuss the unresolved issue.

Respectfully Submitted,

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